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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,520

10/26/2005

Fabrizio Donazzi

05788.0345-00000

5774

22852 7590 03/12/2007

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
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EXAMINER

MAYO III, WILLIAM H

ART UNIT

PAPER NUMBER

2831

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,520	<b>Applicant(s)</b> DONAZZI ET AL.	
	<b>Examiner</b> William H. Mayo III	<b>Art Unit</b> 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 28-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 3, 2007 has been entered.

### ***Drawings***

2. The drawings were received on January 3, 2007. These drawings are approved.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2831

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 28-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siewerth (DE Pat Num 27 10620) in view of in view of Fasterding et al (DE Pat Num 3447836A1, herein referred to as Fasterding). Siewerth discloses an electrical power transmission line (Figs 1-9) comprising a protective cover for producing a protection systems against strong magnetic fields, wherein the power transmission lines are laid underground (Page 3). Specifically, with respect to claim 28, Siewerth discloses an electrical power transmission line (Fig 1) comprising at least one electrical cable (not shown), a conduit (1) of ferromagnetic material enclosing said at least one cable (not shown) and comprising a base (at 2) and a cover (at 4) and electrical contact elements (5) electrically connecting said base (at 2) and said cover (at 4), wherein said electrical contact elements (5) are selected from the group of metal fusion joints (Page 6). With

respect to claim 29, Siewerth discloses that the base (at 2) and said cover (at 4) have superimposed portions on both sides of said conduit (Fig 1), and wherein said electrical contact elements (5) are applied to said superimposed portions (Page 6). With respect to claim 35, Siewerth discloses that the conduit (1) comprises a plurality of longitudinal sections (5) partially superimposed on each other and each comprising a base portion (at 2) and a cover portion (at 4, Page 6). With respect to claim 36, Siewerth discloses that longitudinal sections (5) are electrically coupled to each other (at 7, Page 7). With respect to claim 37, Siewerth discloses that the cover portion (at 4) and the base portion (at 7) each have longitudinal sections (5) which are longitudinally shifted from each other (Fig 1). With respect to claim 39, Siewerth discloses that the ferromagnetic material may be steel (Page 6). With respect to claim 41, Siewerth discloses that at least two of said longitudinal sections (5) extend along different directions (Fig 1), wherein said conduit (1) comprises a joining member (7) for joining said two conduit sections (5), and wherein said joining member (7) consists of two parts electrically connected by means of said electrical contact elements (Pages 6-7). With respect to claim 42, Siewerth discloses that said base portion (at 2) has a "U-shaped cross-section (Fig 1). With respect to claim 43, Siewerth discloses that the cover portion (at 4) is substantially flat (Fig 1). With respect to claim 44, Siewerth discloses that the conduit (1) is placed underground (Fig 5). With respect to claim 45, Siewerth discloses that the material having a magnetic permeability greater than air is positioned between said superimposed portions of said base (at 2) and said cover (at 4). With respect to claim 46, Siewerth discloses a method of screening an electrical power transmission line (Figs

Art Unit: 2831

1-9) comprising a protective cover for producing a protection systems against strong magnetic fields, wherein the power transmission lines are laid underground (Page 3), wherein the transmission line (Fig 1) comprises at least one electrical cable (not shown) being placed in a conduit (1) of ferromagnetic material enclosing said at least one cable (not shown) and comprising a base (at 2) and a cover (at 4) and providing electrical contact elements (5) electrically connecting said base (at 2) and said cover (at 4), wherein said electrical contact elements (5) are selected from the group of metal fusion joints (Page 6). With respect to claim 49, Siewerth discloses that the base (at 2) and said cover (at 4) have superimposed portions on both sides of said conduit (Fig 1), and wherein said electrical contact elements (5) are applied to said superimposed portions (Page 6). With respect to claim 50, Siewerth discloses that the conduit (1) comprises a plurality of longitudinal sections (5) partially superimposed on each other and each comprising a base portion (at 2) and a cover portion (at 4, Page 6), through metal fusion (Page 6). With respect to claim 51, Siewerth discloses that longitudinal sections (5) are electrically coupled to each other (at 7, Page 7) through metal fusion (Page 6). With respect to claim 53, Siewerth discloses a method wherein the conduit (1) is placed underground (Fig 5), wherein the cover (at 4) is leaned over the base (at 2) to close the conduit (1). With respect to claim 54, Siewerth discloses that the cover portion (at 4) and the base portion (at 7) each have longitudinal sections (5) which are longitudinally shifted from each other (Fig 1). With respect to claim 53, Siewerth discloses a method wherein the conduit (1) is placed underground (Fig 5), wherein the cover (at 4) is leaned over the base (at 2) to close the conduit (1).

However, Siewerth doesn't specifically disclose the electrical contact elements are selected from the group of metal fusion joints and resilient members suitable to penetrate said ferromagnetic material (claims 28 & 46), nor the contact elements being metallic clips made of ferromagnetic material (claims 30 & 52).

Fasterding discloses a protective conduit (Figs 1-6) that is of lower weight, easily installed, and prevents damage to interior components, such as a cable, from weather influences (abstract). Specifically, with respect to claims 28, 30, 46, & 52, Fasterding discloses a protective system (Fig 2) comprising at least one electrical conductor (13) being inserted in a conduit (1) comprising a base element (at 1) and a cover (5), wherein the base (1) and cover (5) are joined by contact elements (6) made of ferromagnetic material (i.e. steel, abstract), which are capable of penetrating said ferromagnetic material.

With respect to claims 30 & 52, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the protective conduit of Siewerth to comprise the contact elements configuration as taught by Fasterding because Fasterding teaches that such a configuration provides a protective conduit (Figs 1-6) that is of lower weight, easily installed, and prevents damage to interior components, such as a cable, from weather influences (abstract).

Modified Siewerth also doesn't specifically disclose the superimposed portion having a width that is at least five times greater than the thickness of the air gap (claim 31), nor the air gap being 3% of the perimeter (claim 32), nor the contact elements having a reciprocal longitudinal distance of at most 50 cm (claim 34), nor the

Art Unit: 2831

longitudinal section being superimposed at a length of at least 25% (claim 38), nor the electrical connection having a conductance of 150S/m (claim 46), nor the electrical connection having a conductance of 500S/m (claim 47), nor the electrical connection having a conductance of 1500S/m (claim 48).

With respect to claims 31-32, 34, 38, 38, and 46-47, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the protective device of modified Siewerth to comprise the superimposed portion having a width that is at least five times greater than the thickness of the air gap, the air gap being 3% of the perimeter, the contact elements having a reciprocal longitudinal distance of at most 50 cm, the longitudinal section being superimposed at a length of at least 25%, and the electrical connection having a conductance of at least 150S/m, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 28-54 have been considered but are moot in view of the new ground(s) of rejection.

### ***Communication***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-

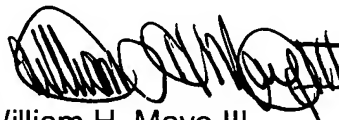


Art Unit: 2831

272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Mayo III  
Primary Examiner  
Art Unit 2831

WHM III  
March 3, 2007

Replacement  
Drawing Sheet

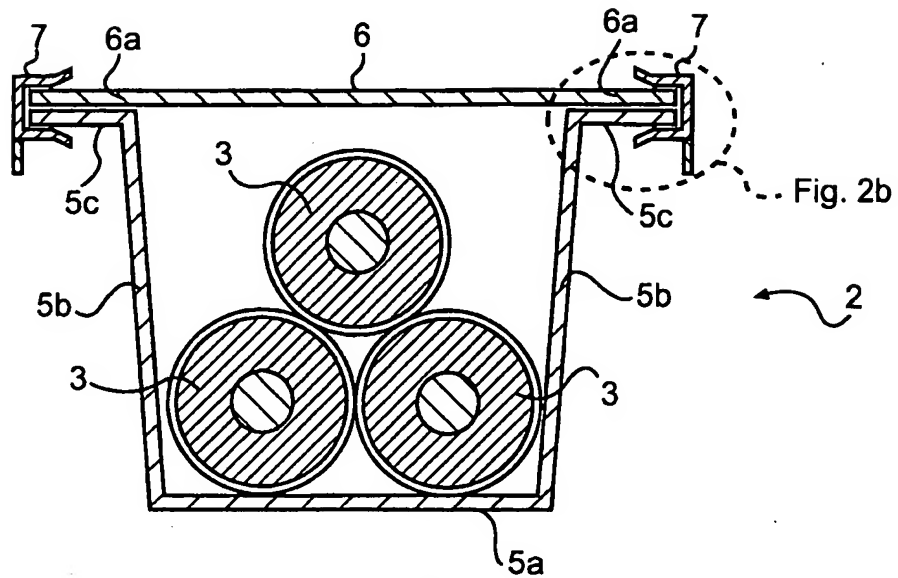
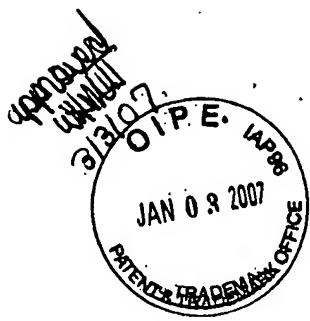


Fig. 2a

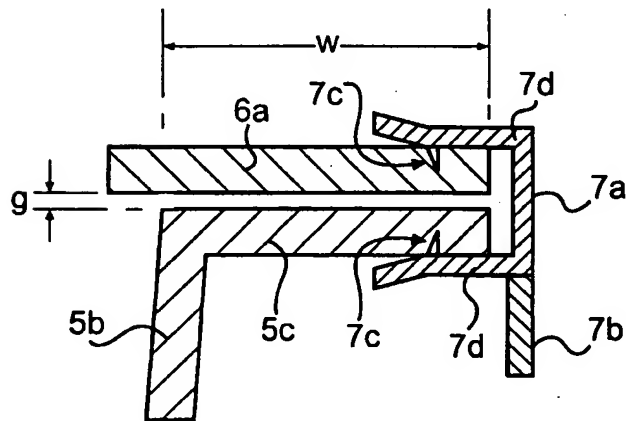


Fig. 2b

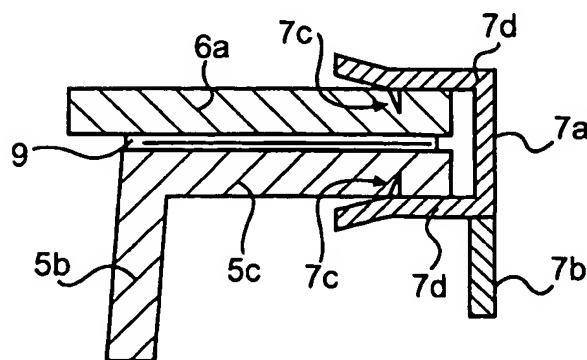


Fig. 2c